Amendment and Response
Applicant: Francisco Corella
Serial No.: 09/483,185
Filed: January 14, 2000
Docket No.: 10991054-1
Title: AUTHORIZATION INFRASTRUCTURE BASED ON PUBLIC KEY CRYPTOGRAPHY

REMARKS

The following remarks are made in response to the Office Action mailed May 2, 2006. Claims 1, 3, 4, 6-13, 15, 16 and 18-24 were rejected. With this Response, claims 1, 3-4, 13, and 15-16 have been amended. Claims 1, 3, 4, 6-13, 15, 16, and 18-24 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 112

The Examiner rejected claims 1 and 13 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Applicant respectfully summits that previous independent claims 1 and 13 contained the limitation that the short-term certificate "is not subject to revocation prior to the expiration date/time" which was supported throughout the present specification, such as at page 6, line 25 through page 7, line 2; at page 18, line 31 through page 19, line 1; and at page 20, lines 28-31, which clearly discloses that embodiments of the invention employ a short-term certificate that is never subject to revocation, thus the short-term certificate "is not subject to revocation prior to the expiration date/time." Nonetheless, as clarified, amended independent claims 1 and 13 clearly recite that the short-term certificate "is never subject to revocation." Accordingly, amended independent claims 1 and 13 are clearly supported by the present specification.

Therefore, Applicant respectfully requests that the rejection to claims 1 and 13 under 35 U.S.C. § 112, first paragraph be withdrawn and that these claims be allowed.

The Examiner rejected claims 1, 3, 4, 13, 15 and 16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner requested clarification of the phrase "date/time."

Amended claims 1, 3, 4, 13, 15 and 16 now clearly recite at least one of an expiration date and an expiration time.

The Examiner rejected claims 4 and 16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner requested clarification

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of the phrase "wherein the expiration date/time of the short-term certificate is no later than a date/time at which a next CRL is scheduled."

Amended claims 4 and 16 now clearly recite "wherein the at least one of expiration date and expiration time of the short-term certificate is before the CRL is next scheduled to be updated."

In view of the above, claims 1, 3, 4, 13, 15 and 16 are believed to be in form for allowance. Therefore, Applicants respectfully request that rejections to these claims under 35 U.S.C. § 112, second paragraph, be reconsidered, and that the rejections be removed and these claims be allowed.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1, 3, 6, 8, 10, 13, 15, 18, 20, and 22 under 35 U.S.C. § 103 as being unpatentable over the Riggins et al. U.S. Patent No. 6,233,341 in view of the Butt et al. U.S. Patent No. 6,754,829.

The Examiner rejected claims 4 and 16 under 35 U.S.C. § 103 as being unpatentable over the Riggins et al. U.S. Patent No. 6,233,341 in view of the Butt et al. U.S. Patent No. 6,754,829 in view of the Naor U.S. Patent No. 6,226,743

The Examiner rejected claims 7, 9, 19 and 21 under 35 U.S.C. § 103 as being unpatentable over the Riggins et al. U.S. Patent No. 6,233,341 in view of the Butt et al. U.S. Patent No. 6,754,829 in view of the Howell U.S. Patent No. 5,276,901.

The Examiner rejected claims 11 and 23 under 35 U.S.C. § 103 as being unpatentable over the Riggins et al. U.S. Patent No. 6,233,341 in view of the Butt et al. U.S. Patent No. 6,754,829 in view of the Maruyama U.S. Patent No. 6,393,563.

The Examiner rejected claims 12 and 24 under 35 U.S.C. § 103 as being unpatentable over the Riggins et al. U.S. Patent No. 6,233,341 in view of the Butt et al. U.S. Patent No. 6,754,829 in view of the Kausik U.S. Patent No. 6,263,446.

The Examiner admits that the Riggins patent does not teach a short-term certificate that is not subject to revocation prior to expiration. Thus, the Riggins patent does not teach or suggest the limitations of amended independent claims 1 and 13 that the short-term certificate "is never subject to revocation." The Examiner cites that Butt et al. patent to teach short lived certificates that removes the need for revocation.

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The combination of the Riggins patent and the Butt et al. patent, however, does not teach or suggest the limitations of amended independent claims 1 and 13 of the short-term certificate including at least one of an expiration date and an expiration time and is never subject to revocation. The Riggins patent at column 3, lines 17-19 states that "[t]emporary certificates can safely be installed because they expire quickly and can be revoked when the user leaves the remote site." and as stated at column 14, lines 46-48 "the secure communications engine 147 determines if the temporary certificate 400 has expired or whether the user has logged out." Thus, in the Riggins system that uses a temporary certificate at a remote site, the system requires that when the user logs out of the remote site that the temporary certificate is revoked.

The Butt et al. patent discloses beginning at column 9, line 32 that the core only grants session certificates to authenticated operators, and session certificates are created on-the-fly, and then destroyed once an operator's session with the manageable device has terminated, and that once a console session terminates the certificate (and its private key) is automatically lost.

Thus, in the Riggins system that uses a temporary certificate at a remote site, the system requires that when the user logs out of the remote site that the temporary certificate is revoked and in the Butt et al. patent the session certificate is destroyed and the certificate (and its private key) is automatically lost once the session terminates. By contrast, with the invention claimed in amended independent claims 1 and 13, when a session terminates or when a user logs out of a remote site, as long as the at least one of an expiration date and an expiration time has not expired, the short-term certificate can still be used.

Furthermore, there is no teaching or suggestion to combine teaching of the Butt et al. patent with the Riggins patent to arrive at the invention claimed in amended independent claims 1 and 13. In fact, Riggins teaches away from a short-term certificate that is never subject to revocation as recited in amended independent claims 1 and 13. For example in the Abstract, the Riggins patent specifically states that "[t]he web server engine maintains a revocation list that contains information identifying revoked temporary certificates, so that a revoked but thus far unexpired certificate can not be improperly used. The web site reviews the temporary certificate for authenticity and contacts the global server site to review the revocation list and determine whether the temporary certificate has been revoked."

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There is also no reasonable expectation of success for this suggested combination as stated in the Riggins patent at column 3, lines 17-19 "[t]emporary certificates can safely be installed because they expire quickly and can be revoked when the user leaves the remote site." and as stated at column 14, lines 46-48 "the secure communications engine 147 determines if the temporary certificate 400 has expired or whether the user has logged out." Thus, in the Riggins system that uses a temporary certificate at a remote site, the system requires that when the user logs out of the remote site that the temporary certificate is revoked. Thus, there would be no reasonable expectation success if such capabilities would be removed from the Riggins system.

Furthermore, the Examiner does not cite a reference for a directory for storing short-term authorization information related to the user as recited in amended independent claim 1. The Examiner states that the Riggins patent does not specifically disclose **short tem authorization information related to a user.** Therefore, the Riggins patent does not teach or suggest a directory for storing **short-term authorization information related to the user,** as recited in amended independent claim 1. Moreover, the Riggins patent also does not teach a short-term certificate binding the public key of the user to long-term identification information related to the user from the long-term certificate and to **the short-term authorization information related to the user from the directory** as recited in amended independent claim 1.

The Examiner cites the Butt et al. patent for teaching short-term authorization information related to the user. However, the Butt et al. patent discloses beginning at column 9, line 58 one embodiment having a field indicating unbound access privileges, which is inserted by the core/certificate authority if the core determines that a "super user" attribute should be inserted. Thus, field indicating unbound access privileges is not stored in a directory. Thus, the Butt et al. patent does not teach or suggest a **directory** for storing short-term authorization information related to the user, as recited in amended independent claim 1. Moreover, the Butt et al. patent also does not teach a short-term certificate binding the public key of the user to long-term identification information related to the user from the long-term certificate and to the short-term authorization information related to the user **from the directory** as recited in amended independent claim 1.

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One advantage of an embodiment of the invention having the short-term authorization information stored in a directory is disclosed in the present specification at page 11 lines 1-5 which states:

> In one embodiment, credentials server 44 obtains the short-term information data needed to issue the short-term certificates from LDAP directory 42. In this embodiment, since credentials server 44 does not contain this short-term information data, credentials server 44 is easily replicated within public key authorization infrastructure 30 for increased performance.

In view of the above, the combination of the Riggins patent, and the Butt et al. patent does not establish any of the three basic criteria of a *prima facie* case of obviousness (See MPEP 2143) toward amended independent claims 1 and 13.

Dependent claims 3, 4, and 6-12 are allowable as depending from an allowable base claim (claim 1) and are allowable on further independent grounds in view of the novel and nonobvious features and combinations set for therein. Dependent claims 15, 16, and 18-24 are allowable as depending from an allowable base claim (claim 13) and are allowable on further independent grounds in view of the novel and nonobvious features and combinations set forth therein.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103 rejection to claims 1, 3, 4, 6-13, 15, 16, and 18-24, and request allowance of these claims.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1, 3, 4, 6-13, 15, 16, and 18-24 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1, 3, 4, 6-13, 15, 16, and 18-24 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

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        Any inquiry regarding this Response should be directed to either Patrick G. Billig at

the below-listed telephone numbers or Kevin Hart at Telephone No. (970) 898-7057,

Facsimile No. (970) 898-7247. In addition, all correspondence should continue to be directed

to the following address:

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> Intellectual Property Administration
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                                                 Respectfully submitted,

                                                 Francisco Corella,

                                                 By his attorneys,

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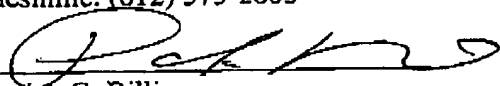   Fifth Street Towers, Suite 2250
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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein,
are being transmitted via facsimile to Facsimile No. (703) 872-9306 on this _5_ day of September, 2006.

                              By: _____
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